



Petenwell
and
Castle Rock
Stewards

Water Quality Task Force

Improving Water Quality Together

June 12, 2019

Rick Georgeson

PACRS Formed in 2007



- Non-Profit
- Organized to improve water quality on Petenwell and Castle Rock Lakes.

Presentation outline

Family fun and recreational use of lakes

Detrimental issue: Algae

Negative impact on business and tourism

Building positive partnerships

Improving water quality together

Ask for continued funding support

Technical Advisors

- Department of Natural Resources
- Land Water Conservation /Juneau ,Wood & Adams Counties
- River Alliance of Wisconsin
- Wisconsin River Power Company
- Midwest Environmental Advocates
- UW Extension
- UW Stevens Point
- NOAA

VALUES OF PETENWELL AND CASTLE ROCK FLOWAGES

- **2nd and 5th largest lakes in Wisconsin**
- **What brings us to the water??**
- **Family vacations**
- **Weekend get away**
- **Fishing**
- **Swimming**
- **Camping**
- **Sailing**
- **Water skiing**
- **Whatever the reason, lake users are concerned about water quality.**

VALUES OF PETENWELL AND CASTLE ROCK FLOWAGES

- 500 Lake Petenwell, Adams Co
- 200 Castle Rock , Adams Co
- 300 Castle Rock, Juneau Co
- 133 Lake Petenwell, Juneau Co
- 57 Buckhorn State Park
- 1190 Total Campsites

Regular People Who Love These
Lakes

VALUES OF PETENWELL AND CASTLE ROCK FLOWAGES



Regular People Who Love These
Lakes

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VALUES OF PETENWELL AND CASTLE ROCK FLOWAGES



VALUES OF PETENWELL AND CASTLE ROCK FLOWAGES

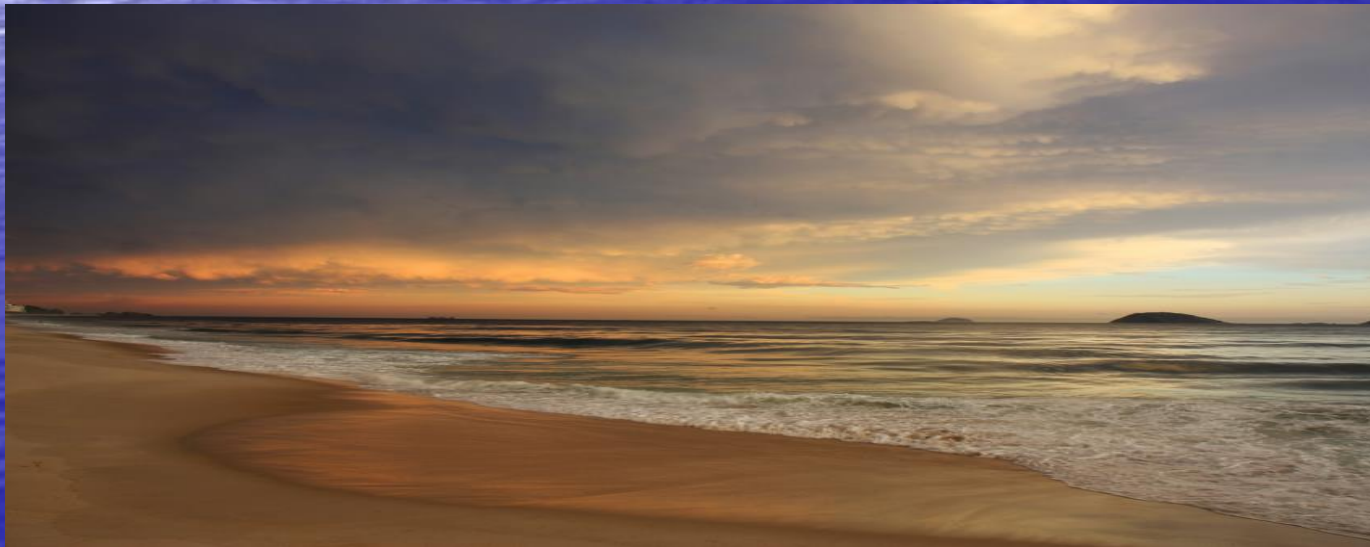




VALUES OF PETENWELL AND CASTLE ROCK FLOWAGES



"Regular People Who Love These Lakes"



ISSUES OF PETENWELL AND CASTLE ROCK FLOWAGES

Decline of property value and tax revenue



Juneau Co Beach 2017



Issues of Petenwell and Castle Rock Flowages



I've seen kids run out of the car, down to the beach, stop, and go back to the car."

Rick Carlson, Owner of Rustic Ridge

Issues of Petenwell and Castle Rock Flowages

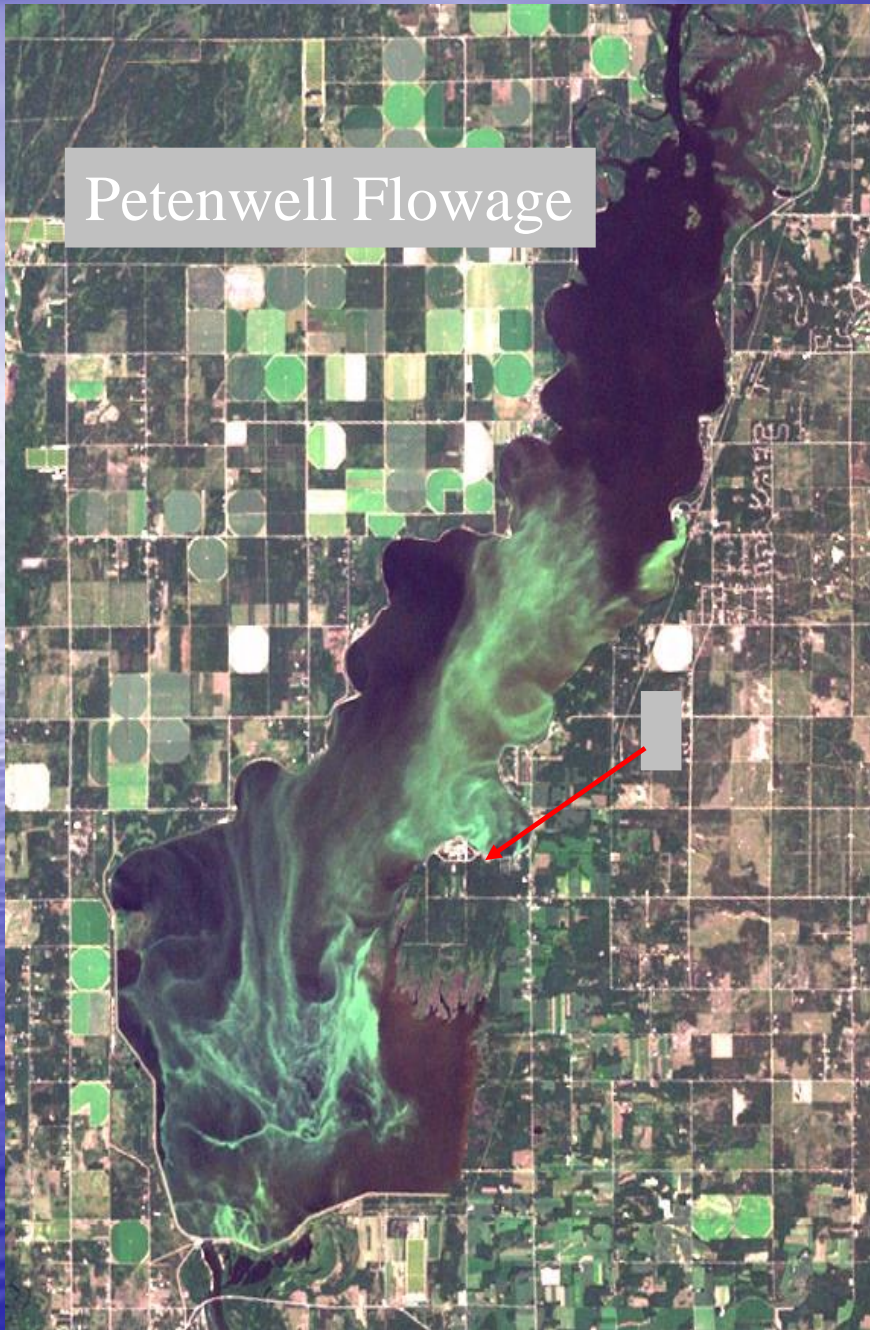
- **Impaired water quality**
- **Loss of recreational use**
- **Decline of property value and tax revenue**
- **Negative impact on business – tourism**

Issues of Petenwell and Castle Rock Flowages



- **Decline of property value and tax revenue**

Petenwell Flowage

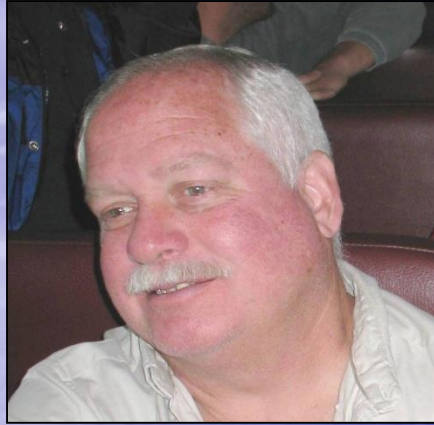


Castle Rock Flowage



Barnum Bay Marina Then and Now





Barnum Bay Marina owner Tom Koren:

"My business could be doubled if the green wasn't here. People keeping boats at my marina used to call up prior to coming out here and ask whether or not an algae bloom was on. Now, they call and ask me how bad the algae is. There used to be a waiting list to get a slip in my marina. Now it's tough to get it half full."

Issues of Petenwell and Castle Rock Flowages



Issues of Petenwell and Castle Rock Flowages



Issues of Petenwell and Castle Rock Flowages



Issues of Petenwell and Castle Rock Flowages



Issues of Petenwell and Castle Rock Flowages







Issues of Petenwell and Castle Rock Flowages

- Others who have been negatively impacted

Boaters Comment

Getting to the gas pump at Barnum Bay was truly a gut-wrenching experience. The smell was overwhelming.

The lake itself was pretty nasty. Yikes!!

Mark Weiland August 6, 2007

Racine, Wi

Vacation Plans Nixed

"I had my Petenwell lake home rented for a week to a family from Canada. When they arrived, they were so disappointed in the smell off the bay and the yucky water, they didn't even unpack"

Disappointed Owner

Petenwell Sport Shop

“The wonderful aroma was so bad, we couldn’t even open the windows.”

“People at the park were cutting their vacations short do to the stink”

“ People were buying disinfectants and medications because kids were sick”

Sue Garman, owner

“People would get out of their car, breath the air, and just get back in their car and leave. It really hurts business”

Bay Rest Employee

Issues of Petenwell and Castle Rock Flowages

"The number two waterway in Wisconsin—26,000 acres of water should somehow get some attention. It just seems to be being ignored—that's the best way that I can explain it."

Tom Dorsey owner Bay Rest

Issues of Petenwell and Castle Rock Flowages

- "As a business owner, I've had people get a cabin and check in, unload, and then leave after two days because the algae is so bad."



Tom Dorsey

"It was the topic of conversation. The wake behind a boat was nasty."

" A lot of people stayed away because it was so bad"

" I had my cottage rented , they left the first day the lake smelled so bad"

Jeff Patterson, owner Petenwell Pub

Issues of Petenwell and Castle Rock Flowages

- Don and Donna Hurta, owners of Slip Inn:
 - - “In our back bay, it’s like pea soup. You put your boat in it, and it sticks like paint.”
 - - “Our business is down, fishing is down. When customers come up here and rent lodging and a boat, buy gas, and food, and then they go out on the lake and it’s green—what do you tell them?”



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Carlson's Rustic Ridge Beach with no algae present on Castle Rock Lake



Issues of Petenwell and Castle Rock Flowages

“For those of you who may be unfamiliar with blue-green algae, to put it bluntly, it stinks”

Former Senator Russ Feingold



Carlson's Rustic Ridge Owner Rick Carlson:

"When the algae blooms are present, my revenues are down 25%. One less boat per weekend is one less table for dinner and drinks."



Prospective Petenwell property owner Ned Gillette:

"As a property owner who has a vested interest in the area, there are certain basic infrastructure components that have to be in existence, and water is first and foremost. Water quality is what is bringing people in to purchase property on the water."

Plans to hold a wedding at Splash were cancelled due to the smell of algae on Castle Rock Lake – August 2018 – Connie Carlson, Owner



Pontoons and Politics - 2007



Pontoons and Politics



Politicians in attendance: Former Representative Marlin Schneider, Senator Julie Lassa, Mark Seitz (from Congressman Ron Kind's office)

Pontoons and Politics



Issues of Petenwell and Castle Rock Flowages



- **Impaired water quality**



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PONTOON AND POLITICS



FEDERAL AND STATE POLICY-MAKERS COMMUNICATING

Results of Pontoons and Politics

- \$150,000/ year for 5 years
- Fund cost of water quality study(TMDL)
- Measure nutrients at various tributaries



Kathy Stepp, DNR Secretary “ I wouldn’t let my kids swim in this water”

PACRS Monitoring for TMDL





PACRS communicating with Congressman Petri



Team Work

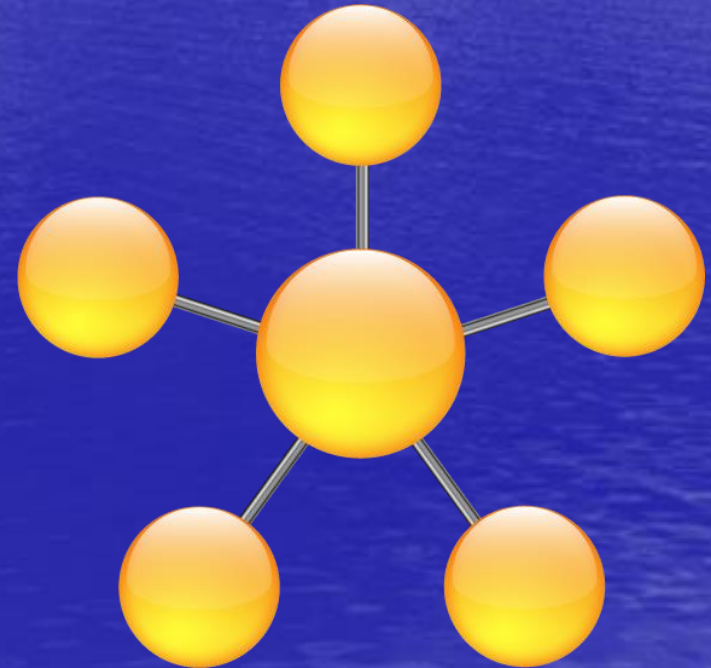


- Link 9 citizen groups from Rhinelander to Lodi on the Wisconsin River

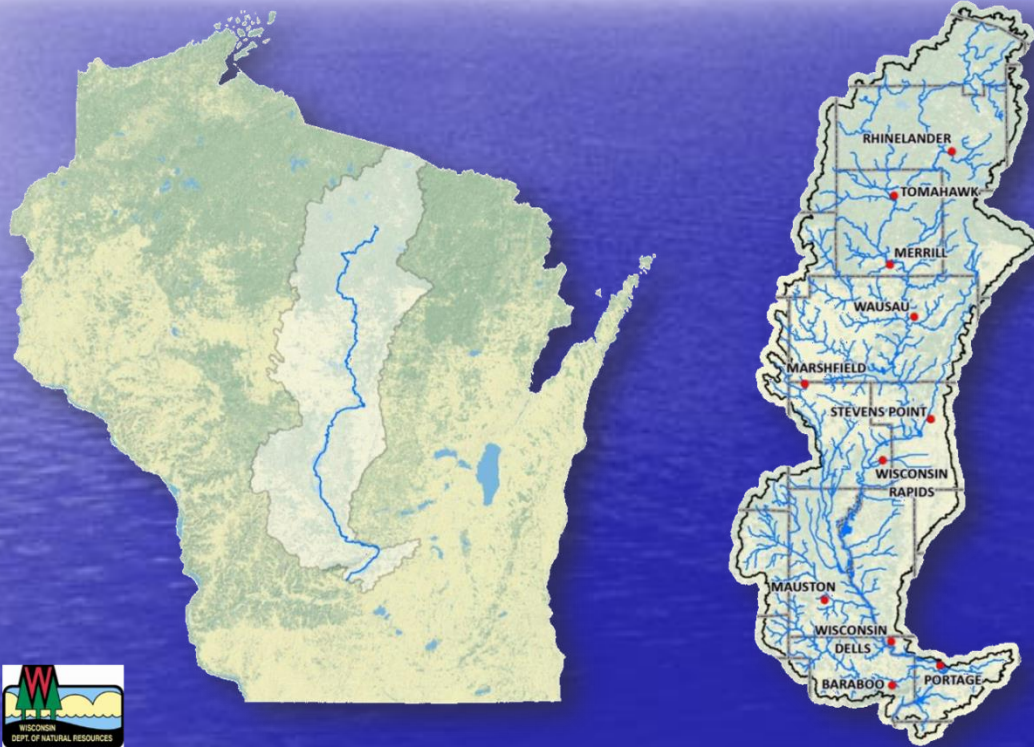
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ACCOMPLISHMENTS – Linking Wisconsin River Citizen Groups

- Lake Wisconsin
- Stewards of the Dells
- PACRS
- Friends of Mill Creek
- Big Eau Pleine (BEPCO)
- EPPIC
- Lake Wausau



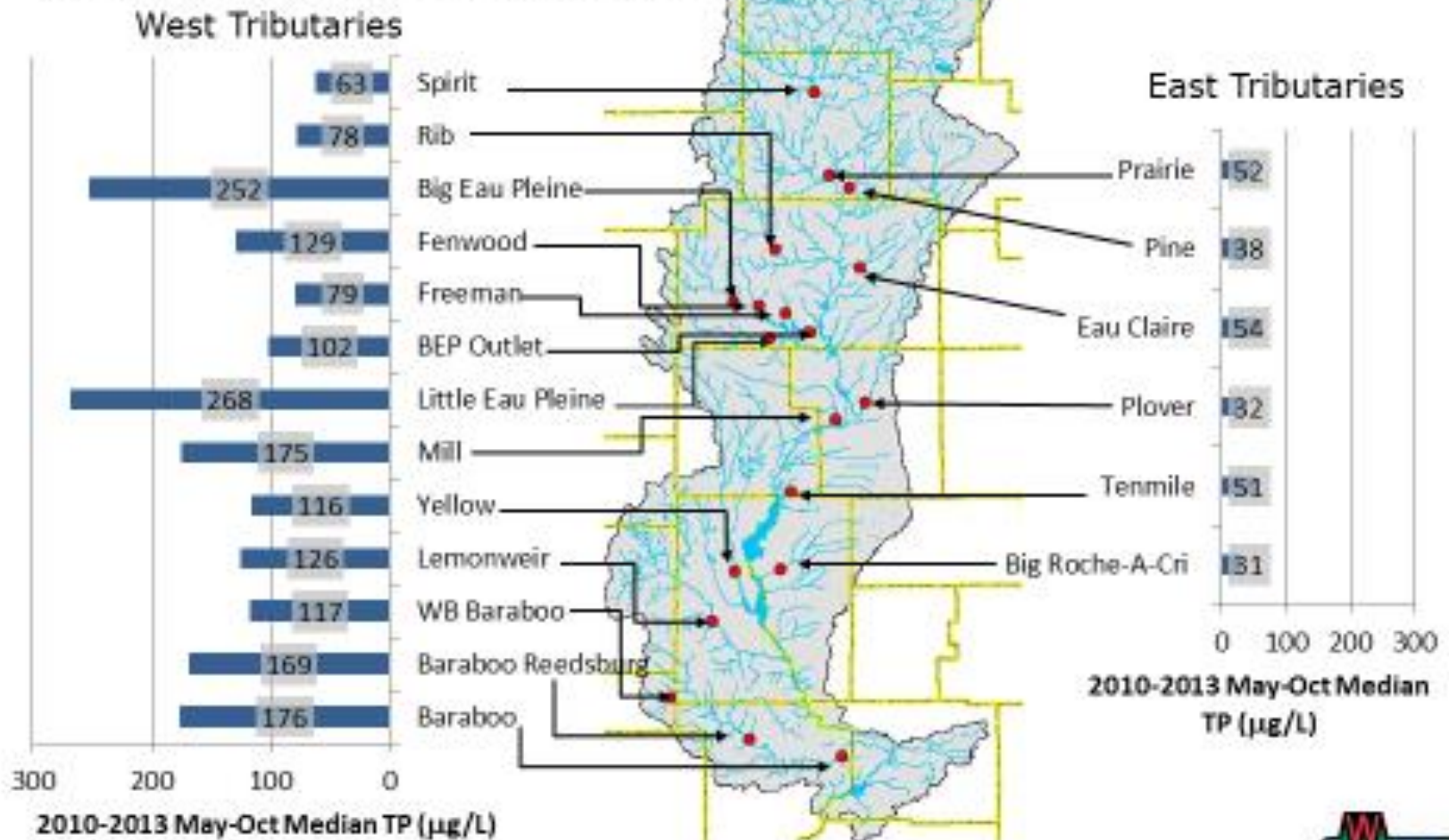
The Wisconsin River Basin (WRB) Water Quality Improvement Project



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Tributary Monitoring Results

Total Phosphorus Concentration



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Wisconsin River Symposium 2010 – 2016 Annually



Regular People Who Love These
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Wisconsin River Symposium



Regular People Who Love These Lakes

Healthy Soil/Healthy Water Workshop - 2016

- Midstate Technical College Campus
- 138 registrants
- 50% ag producers
- Keynote: Ray Archuleta (NRCS Arkansas)
- Promote use of cover crops
- Promote no till practice
-

NRCS Ray Archuleta

MobileMentor
Free
App

 MID-STATE
TECHNICAL COLLEGE



Healthy Soil/Healthy Water



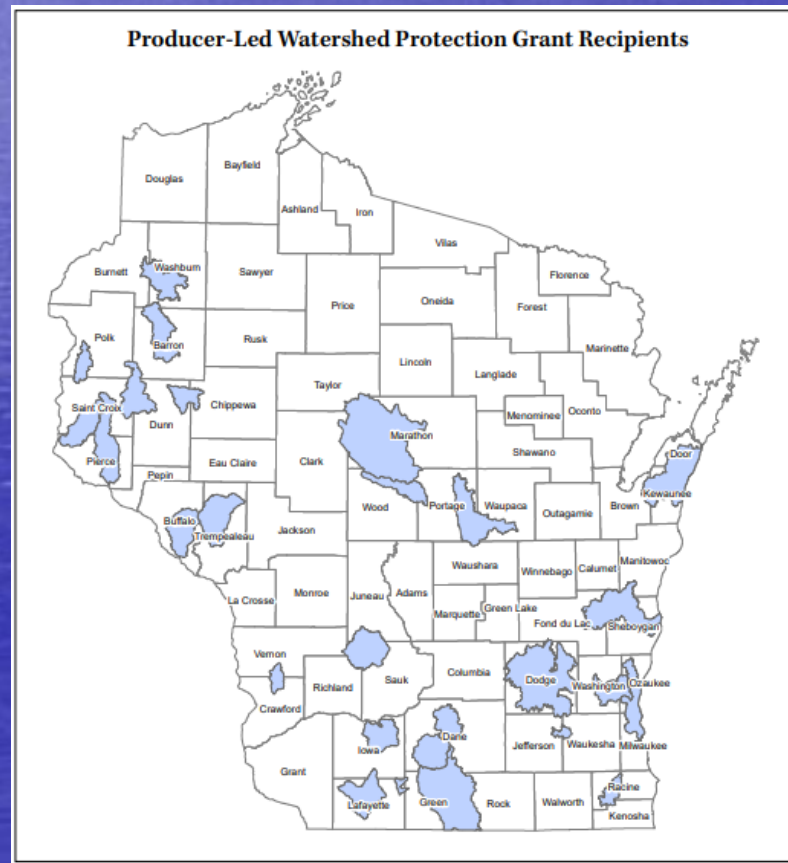
Take away

- Bring lake users to the farm/bring the farmers to the lake
- “We aren’t the problem/we are the solution” Yahara Watershed Farmer
- Cover Crop and No Till
- Farmer led Councils

Birth of 3 Producer Led Councils

- John Eron, farmer: Mill Creek
- Matt Hintz, farmer: Tomorrow River
- Tony Pierick, farmer: Dodge County

26 Producer Led Councils



Eron Farm Tour









Ken Schroeder (UW Extension) Demo of Rain Fall Simulator



Improving Water Quality "Together"



"Regular People Who Love These
Lakes"





Dec. 2017



Dec. 2017



Dec. 2017



Healthy Soil/Healthy Water

March 6, 2017

Agriculture Research Station

Marshfield, Wi



Panel of no till farmers

- 25 yrs. Use of no till and cover crop
- No till/cover crop can be seen as Win/Win
- Increases profit while reducing run off

Summer Field Day – June 2018

Mill Creek Farmers Council



Overseeding Cover Crop Mill Creek Farmer Led Council

6/20/18



Winter Field Day

Dec 5, 2018



Successful Healthy Soil / Healthy Water Workshop 2018

- Andy Benson Keynote Speaker
- 1000 acres no till
- 75 registrations
- Awarded two farmers Conservation award

PACRS Awards Farmers For Outstanding Conservation Practices – Wallendal Farm



Eron Farm Award



PACRS Donated \$2,000 toward no till drill purchase



Agriculture can do it!

Pecatonica Watershed – Pilot Project



Test to see if standard practices could reduce phosphorus in a watershed

Farmers voluntarily provided field information for an inventory and stepped up to implement needed practices

Result:
37% reduction in
Phosphorus runoff





How much 'P' reduction is realized when fields are converted to no till/cover crops?

1 # of 'P' reduction / acre

How many acres of cropland lie north of Lake Petenwell?

610,000 acres

No till/Cover Crop=610,000# P reduction

840,000 # 'P' enter Petenwell/year

Thank farmers for your efforts

- No till
- Cover crop
- Conservation ideas
- Dedication



“Never doubt that a **small** group of **thoughtful, committed** citizens can change the world: indeed, it's the only thing that ever has”

Margaret Mead



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Wisconsin River TMDL EPA Approved April 2019

- 5 year relationship with agriculture has resulted in a very respected partnership.
- Cooperation between all stakeholders needs to continue.
- Staffing needs to be adequate for both counties and DNR.

Our Ask of the Water Quality Task Force

- \$12.4 million to fund the county conservation staff
-
- Adequate funding for DNR to implement TMDL
- Continue funding for Farmer Led Councils
- Increase funds and support for non point runoff

Meaningful Actions

We have found that building positive relationships with partners and stakeholders has brought successful actions.

New day brings new efforts
New efforts improve water



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Working Together



Working for the next generation



Water Quality For Future Generations



Working for next generation





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Lakes

Wisconsin Public Radio Interview



PACRS donated \$2,000 to Wood County for the purchase of a no-till drill. Equipment available to county farmers.



ISSUES OF PETENWELL AND CASTLE ROCK FLOWAGES



Preparation



Pontoons and Politics 2014





Juneau Co Beach 2017



Winter Field Day

Dec 5, 2018





Next Step

- Form farmer led councils
- Farmer to farmer
- Bring farmers to the lake
- Bring lake users to the farm

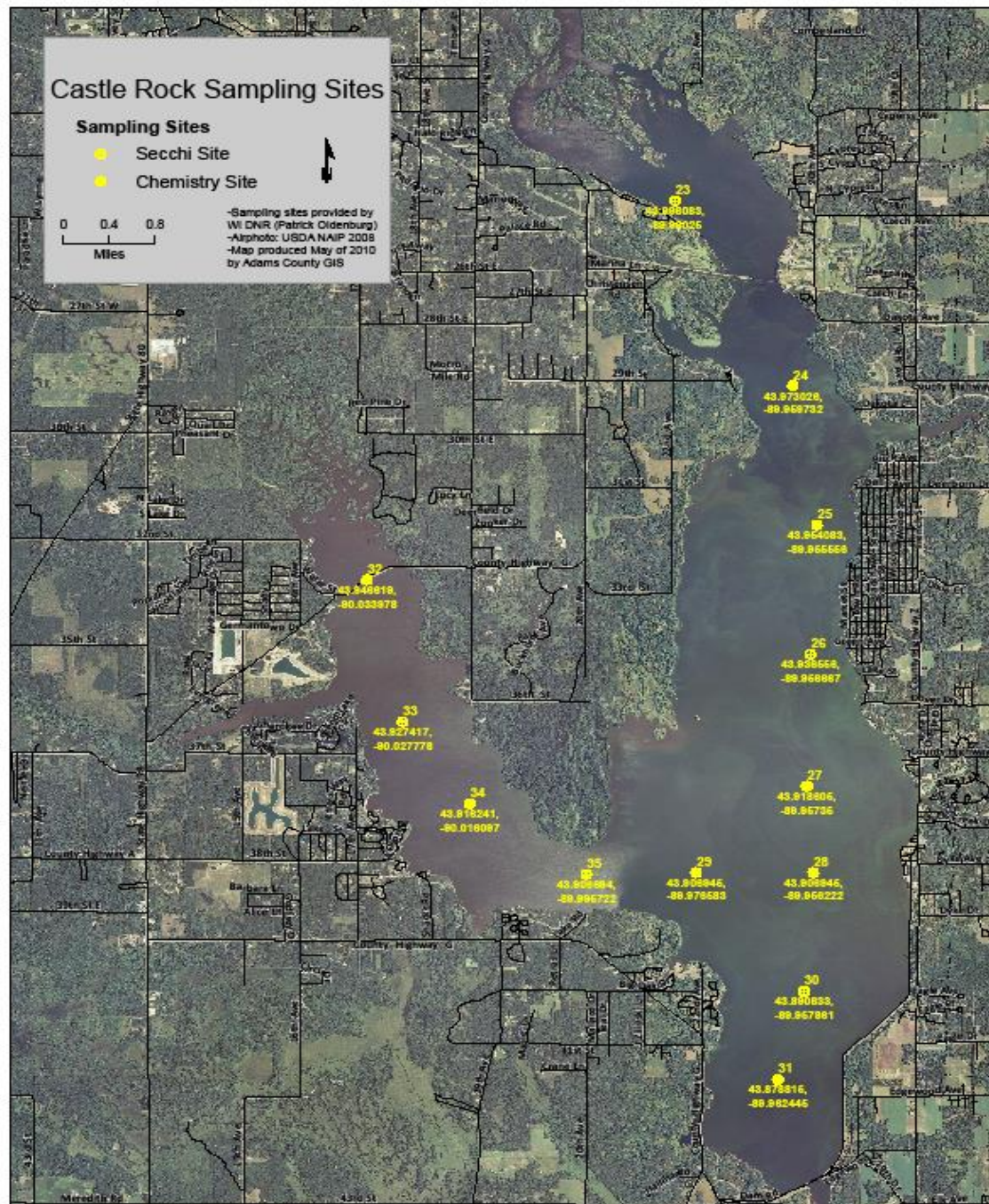
Castle Rock Sampling Sites

Sampling Sites

- Secchi Site
- Chemistry Site

0 0.4 0.8
Miles

-Sampling sites provided by
WI DNR (Patrick Oldenburg)
-Airphoto: USDA NAIP 2008
-Map produced May of 2010
by Adams County GIS



Mill Creek Monitoring Site Dec 5, 2018



Petenwell Sampling Sites

Sampling Sites

- Secchi Site
- Chemistry Site

0 0.5 1
Miles

-Sampling sites provided by
WI DNR (Patricia Ciesburg)
-Aerphoto: USDA NAIP 2008
-Map produced May of 2010
by Adams County GIS

Map showing 22 numbered sampling sites with coordinates:

Site Number	Coordinates (X, Y)
1	44.236968, -89.901568
2	44.217589, -89.906748
3	44.233333, -89.906061
4	44.204417, -89.930972
5	44.191254, -89.913557
6	44.191254, -89.931448
7	44.175361, -89.930111
8	44.165190, -89.907909
9	44.186333, -89.947861
10	44.165485, -89.948891
11	44.147889, -89.939058
12	44.134308, -89.899972
13	44.124222, -89.845539
14	44.119638, -89.978167
15	44.126365, -89.899717
16	44.126917, -90.006859
17	44.116894, -90.037972
18	44.104444, -90.001381
19	44.082917, -90.027028
20	44.082211, -90.009404
21	44.082917, -89.992444
22	44.082917, -89.973194

- Secchi Site
- Chemistry Site

A scale bar with markings at 0, 0.5, and 1 mile.

-Sampling sites provided by WI DNR (Patrick Oldenburg)
-Airphoto: USDA NAIP 2008
-Map produced May of 2010 by Adams County GIS

Planning Team for Workshop

DNR TMDL Lead Person Ann Hirekature

3 PACRS Board Members

1 Farm Bureau

1 Ag producer

Marshfield WasteWater Treatment
supervisor

2 UW Extension

NOAA ALGAE COLLECTION - SAMPLES



NOAA ALGAE COLLECTION

National Oceanic Atmospheric Administration
Algae Sampling and Identification Project



Boaters Comment

"This past weekend, the harbor at Barnum Bay was unbearable. Getting to the gas pump was truly a gut-wrenching experience. The smell was overwhelming, and with a southeast breeze it blew up the shore into the Bay. The lake itself was pretty nasty. Yikes!! And last weekend's algae bloom was the worst many had every seen."

Mark Weiland August 6, 2007

Racine, Wi

TMDL DATA COLLECTION -TRAINING





Bay Rest Resort owner Tom Dorsey:

"I'm a taxpayer, and I employ 13 people. I'm trying to keep my people employed, but this algae has hurt our business on Petenwell and Castle Rock."

Agriculture can do it!

Pecatonica Watershed – Pilot Project



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Juneau Co Beach 2017



“ If these lakes were clean, we would have the best natural recreational area in the state”

Bay Rest Restaurant customer

Issues of Petenwell and Castle Rock Flowages

- Greg Van Meter, user of the lakes:
- - I don't know what to say about it—I want to take my grandkids fishing, but I can't. ...We're smarter than this."

PACRS Mission Statement

Improve water quality and the fishery of Petenwell and Castle Rock Lakes.

60 interested citizens

- River Alliance of Wisconsin
- County Conservationists
- DNR

Current Membership Approaching 200
paid members

**WANT TO HELP IMPROVE
WATER QUALITY OF THE
PETENWELL/CASTLE ROCK
FLOWAGES**

Meeting Date: April 3, 2007

TMDL DATA COLLECTION – LOCATING SITE



TMDL DATA COLLECTION





www.pacrs.org

Issues of Petenwell and Castle Rock Flowages

- **Impaired water quality**





Thank You

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Meaningful Actions

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